



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/089,426	03/29/2002	Juha Pihlaja	297-010894-US (PAR)	7015				
2512 PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824	7590 08/23/2007		<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">HALIYUR, VENKATESH N</td></tr></table>		EXAMINER		HALIYUR, VENKATESH N	
EXAMINER								
HALIYUR, VENKATESH N								
			<table border="1"><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>2616</td><td></td></tr></table>	ART UNIT	PAPER NUMBER	2616		
ART UNIT	PAPER NUMBER							
2616								
			<table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>08/23/2007</td><td>PAPER</td></tr></table>	MAIL DATE	DELIVERY MODE	08/23/2007	PAPER	
MAIL DATE	DELIVERY MODE							
08/23/2007	PAPER							

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/089,426

Applicant(s)

PIHLAJA, JUHA

Examiner

Venkatesh Haliyur

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on 06/08/2007 is insufficient to overcome reference Delprat et al. and Lenzo et al. Rejection follows.
2. Claims 1-17 is pending in the application. Claims 8-17 are new.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delprat et al. [US Pat: 5,617,412] in view of Lenzo [US Pat: 6,556,830].

Regarding claims 1-2, Delprat et al. in the invention of "Frame/Multiframe Structure FDMA System and Corresponding Signal" disclosed a method for providing wireless point-to-multipoint connections having an access point (base

station, SB of Fig1) using full-duplex mode and terminals (**mobile stations, SMs of Fig 1)** using half-duplex mode wherein that, (**col 6, lines 14-23)** each of a plurality of the terminals has an equipment identifier (**Fig4, unit1, unit 2, col 8, lines 11-19, Fig 1, SM11, SM22, col 6, lines 4-13)** each of said plurality of the terminals is arranged to classify itself as belonging to a first group of terminals (**group 21 of Fig 1)** or a second group (**group 22 of Fig 1)** of terminals based on said equipment identifier according to a predefined rule (**based on frequency, col 6, lines 4-33**); and the access point is arranged to send a first broadcast message to said first group of terminals and a second broadcast message to said second group of terminals (**col 2, lines 43-47, col 3, lines 58-65**), but fails to disclose that the access point (**base station**) is arranged to schedule the transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. However Lenzo disclosed in the invention of "Coverage Area Sectorization in Time Division Multiple Access/Frequency-Time Division Duplex Communications Systems" disclosed a method where base station (**access point**) is arranged to schedule the transmission period of one group of terminals to overlap with the second group of terminals in order to maintain synchronization (**Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-67, col 10, lines 1-9**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission and reception periods of first and second

group terminals as taught by Lenzo in the system of Delprat et al. to enable access point to schedule transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. One is motivated as such to simultaneously schedule both listening and transmission periods of first group, second group terminals at the access point without loss of synchronization between the access point and the terminals belonging to first and second groups.

Regarding claim 3, Delprat et al. disclosed that access point of a point-to-multipoint wireless link system (**base station, SB of Fig 1**), wherein that the access point is arranged to send a first broadcast message in a frame to a first group (**police department group**) of terminals and a second broadcast message in said frame to a second group of terminals (**fire department group**) (**col 3, lines 12-20**), but fails to disclose that the access point is arranged to schedule the transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. However, Lenzo disclosed a method where base station (**access point**) is arranged to schedule the transmission period of one group of terminals to overlap with the second group of terminals in order to maintain synchronization (**Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-67, col 10, lines 1-9**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission and reception periods transmission and

reception periods of first or second group terminals as taught by Lenzo in the system of Delprat et al. to enable access point to schedule transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. One is motivated as such in order to simultaneously schedule both listening and transmission periods of first group, second group terminals at the access point without loss of synchronization between the access point and the terminals belonging to first and second groups.

Regarding claim 4, Delprat et al. disclosed that terminal of a point-to-multipoint wireless link system, which terminal has an equipment identifier (**Fig4, unit1, unit 2, col 8, lines 11-19, Fig 1, SM11, SM22, col 6, lines 4-13**), characterized in that the terminal is arranged to classify itself as belonging to a first group of terminals (**group 21 of Fig 1**) or a second group of terminals (**group 22 of Fig 1**) based on the equipment identifier according to a predefined rule (**based on frequency, col 6, lines 4-33**); the terminal is arranged to receive a first broadcast message if it belongs to said first group (**first group, item 2₁ of Fig 1**) and a second broadcast message if it belongs to said second group (**second group, item 2₂ of Fig 1, col 6, lines 4-17**) but fails to disclose that the transmission period of the terminal is arranged to overlap at least partly with a transmission period of said first broadcast message if it belongs to said second group. However, Lenzo disclosed a method where base station (**access point**) is arranged to schedule the transmission period of one group of terminals to

overlap with the second group of terminals in order to maintain synchronization (**Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-67, col 10, lines 1-9**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission and reception periods transmission and reception periods of first or second group terminals as taught by Lenzo in the system of Delprat et al. to enable access point to schedule transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. One is motivated as such in order to simultaneously schedule both listening and transmission periods of first group, second group terminals at the access point to without loss of synchronization between the access point and the terminals belonging to first and second groups.

Regarding claim 5, Delprat et al. disclosed wherein the terminal is arranged to perform the classification based on the value of the least significant bit of the identifier (**Fig 4, col 8, lines 11-24**).

Regarding claim 6, Delprat et al. disclosed a method for providing wireless point-to-multipoint connections between an access point (**base station, SB of Fig1**) and a plurality of terminals (**mobile stations, SMs of Fig 1**), wherein: the terminals are grouped into a first group (**groups 21 of Fig 1**) and a second group (**groups 22 of Fig 1, col 6, lines 4-13**), during a transmission frame, the access point sends a first broadcast message to terminals in the first group and a second broadcast message to terminals in the second group (**col 2,**

lines 43-47, col 3, lines 58-65), but fails to disclose that at least one of the terminals of the second group is scheduled to transmit during at least a part of the transmission period of said first broadcast message. However, Lenzo disclosed a method where base station (**access point**) is arranged to schedule the transmission period of one group of terminals to overlap partially with the second group of terminals in order to maintain synchronization (**Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-67, col 10, lines 1-9**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling partially overlapping transmission and reception periods transmission and reception periods of first or second group of terminals as taught by Lenzo in the system of Delprat et al. to enable at least one of the terminals of the second group to schedule transmission during at least part of the transmission period of first broadcast message. One is motivated as such in order to overlap transmit periods of second group terminals with that of the transmission period of first broadcast message without the loss of synchronization between the access point and the terminals belonging to first and second groups.

Regarding claim 7, Delprat et al. disclosed wherein at least one of the terminals of the first group is scheduled to transmit during at least a part of the transmission period of said second broadcast message (**col 6, lines 34-67, col 7, lines 1-34**).

Regarding claims 8-11, Delprat et al disclosed that said broadcast message comprises of at least one of control **information (control frame, col 7, lines 1-22)**, or information about an access time slot (**Figs 1,8, col 6, lines 4-33**), and said control information is composed of the identifier of the access point (base station), identifier of the network operator (sending network), or identifier of the transmission sector (**col 3, lines 50-67, col 4, lines 1-55**).

Regarding claims 14-17, Delprat et al disclosed that at least one of said broadcast messages comprises control information (**col 2, lines 50-64**).

Regarding claims 12-13, Delprat et al disclosed that the wireless communication system comprising only a single access point (**SB of Fig 1, col 5, lines 64-67**).

Response to Arguments

5. Applicant's arguments, (see remarks) filed on 06/08/2007, with respect to the rejection(s) of claim(s) 1-7 have been fully considered and but are not persuasive.
6. In response to applicant's argument with respect to claims 1-7 that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one

Art Unit: 2616

of ordinary skill in the art. Delprat et al. (col 6, lines 4-18) reference disclosed their invention in the area of wireless point to multipoint communication system for wireless terminals arranged as groups that receives simultaneous (overlapping) broadcast messages transmitted from access point (or base station) to the groups and Lenzo disclosed the invention for radio communications system for broadcasting control channels simultaneously to radio terminals from an access point (base station, col 3, lines 28-67) and hence the examiner respectfully disagrees with the applicant's remarks that there is no teaching, suggestion, or motivation to combine the references since both Delprat et al. and Lenzo disclosed their inventions for wireless communication systems for transmitting broadcast messages from an access point which is in the area of applicant's invention and Delprat et al further disclosed another object of the invention is to provide a capability for the base stations (access point) to simultaneously transmit to some mobile stations and receive signals from other mobile stations without any disturbance (col 6, lines 14-23).

7. With respect to applicants argument that Delprat et al and Lenzo reference does not disclose one access point broadcasting messages to wireless terminals, however examiner respectfully traverses applicant's to the references, where both Delprat et al. (see col 5, lines 55-67) and Lenzo (see col 3, lines 28-67) disclosed simultaneously transmitting broadcast messages to wireless terminals from a single access point (base station).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

Art Unit: 2616

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

UH 08/16/07

EDAN D. ORGAD
SUPERVISORY PATENT EXAMINER

Edan Orgad 8/20/07